

## CLAIMS

What is claimed is:

1. A method of controlling cooking rice in a microwave oven, the method comprising:
  - setting up at least one rice cooking operation in the microwave oven depending upon an amount of rice and water;
  - heating the rice and the water in a cooking chamber of the microwave oven using a magnetron;
  - computing the amount of the rice and the water in the microwave by measuring a vapor concentration within the cooking chamber; and
  - cooking the rice using the at least one rice cooking operation corresponding to the computed amount of the rice and the water.
2. The method according to claim 1, wherein said setting up the at least one rice cooking method comprises providing data as to an output level of the magnetron to be controlled corresponding to the type of rice and the ratio of the rice to the water .
3. The method according to claim 1, wherein said setting up the at least one rice cooking method comprises providing data relating to an operating time of the magnetron corresponding to the type of rice and the ratio of the rice to the water .
4. The method according to claim 1, wherein said cooking the rice comprises, according to the at least one rice operation,
  - allowing the rice to absorb water;
  - boiling the rice; and
  - steaming the rice at a predetermined temperature.
5. The method according to claim 4, wherein the boiling of the rice comprises :
  - detecting the vapor concentration within the cooking chamber; and
  - lowering an output of the magnetron when the sensed vapor concentration reaches a predetermined value.

6. The method according to claim 5, wherein the predetermined value corresponds to a boiling point of the water.

7. A microwave oven comprising:  
a control panel through which a user can select at least one rice cooking operation;  
a magnetron to heat a mixture of rice and water with high frequency electromagnetic waves;  
a gas sensor to sense a vapor concentration generated from the mixture being cooked;  
a memory to store at least one rice cooking operation according to an amount of a mixture of the rice and the water be heated; and  
a controller to drive said magnetron to heat the mixture, to compute the amount of the mixture depending upon the sensed vapor concentration detected by said gas sensor, and to read the at least one rice cooking operation from said memory to control said magnetron.

8. The microwave oven according to claim 7, wherein said controller controls an output level of said magnetron based on the computed amount of the mixture.

9. The microwave oven according to claim 7, wherein the controller controls an operating time of said magnetron based on the computed amount of the mixture.

10. The microwave oven according to claim 7, wherein said controller controls an output level of said magnetron to be lowered when the sensed vapor concentration sensed by said gas sensor reaches a predetermined value.

11. The microwave oven according to claim 10, wherein the predetermined value is the boiling point of the water.

12. A method of cooking rice in a microwave oven, comprising:  
heating a mixture of a liquid and a food;  
detecting a predetermined vapor concentration generated by the mixture during said heating the mixture;  
calculating a time to reach the predetermined vapor concentration; and  
adjustably heating the mixture according a predetermined cooking profile corresponding to the calculated time so as to complete a cooking cycle of the mixture.

13. The method according to claim 12, wherein the predetermined cooking profile is one of multiple cooking profiles, each of the cooking profiles corresponding to a time to reach the predetermined concentration.

14. The method according to claim 13, wherein said adjustably heating the mixture according to the predetermined cooking profile comprises:

retrieving one of the cooking profiles from a memory according to the calculated time to reach the predetermined concentration, and

setting the one cooking profile as the predetermined cooking profile.

15. The method according to claim 14, wherein the predetermined cooking profile comprises lowering a cooking power to lower a cooking temperature of the mixture during said adjustably heating the mixture.

16. The method according to claim 15, wherein the predetermined vapor concentration corresponds to a boiling point of the liquid.

17. The method according to claim 16, wherein the liquid comprises water and the food comprises rice.

18. The method according to claim 12, further comprising detecting a type of the food, wherein said adjustably heating the mixture comprises controlling an output level of a magnetron of the microwave according to the detected type of the food and an amount of liquid in the mixture determined by the calculated time to reach the predetermined concentration.

19. The method according to claim 17, wherein the predetermined cooking profile comprises:

lowering the cooking temperature; and

steaming the rice at the lowered cooking temperature.

20. A computer readable medium encoded with processing instructions for implementing a method of cooking in a microwave oven performed by a computer, the method comprising:

controlling a heating element to heat a mixture of a liquid and a food;  
receiving a signal corresponding to a detected predetermined vapor concentration generated by the mixture during said controlling the heating element;  
calculating a time to reach the predetermined vapor concentration; and  
adjustably controlling the heating element to heat the mixture according a predetermined cooking profile corresponding to the calculated time so as to complete a cooking cycle of the mixture.

21. The computer readable medium according to claim 20, wherein the predetermined cooking profile is one of multiple cooking profiles, each of the cooking profiles corresponding to a time to reach the predetermined concentration.

22. The computer readable medium according to claim 21, wherein said adjustably controlling the heating element comprises:  
retrieving one of the cooking profiles from a memory according to the calculated time to reach the predetermined concentration, and  
setting the one cooking profile as the predetermined cooking profile.

23. The computer readable medium according to claim 22, wherein the predetermined cooking profile comprises lowering a cooking power to lower a cooking temperature of the mixture during said adjustably controlling the heating element.

24. The computer readable medium according to claim 23, wherein the predetermined vapor concentration corresponds to a boiling point of the liquid.

25. The computer readable medium according to claim 24, wherein the liquid comprises water and the food comprises rice.

26. The computer readable medium according to claim 20, further comprising receiving a signal identifying a type of the food, wherein said adjustably controlling the heating element comprises controlling an output level of a magnetron of the microwave according to the identified type of the food and an amount of liquid in the mixture determined by the calculated time to reach the predetermined concentration.

